

PUBLIC WORKS AND ENVIRONMENTAL: REVIEW CHECKLIST
AS-BUILT HYDROLOGY/DETENTION POND

PROJECT: _____ **Date:** _____

LAND DEVELOPMENT PERMIT # _____

ENGINEER: _____

FAX: _____

The following is the minimum information required in a standard hydrology study submitted to the City of Roswell. Additional information may be required for site specific conditions. It shall be at all times the responsibility of the engineer of record to accurately model and report the conditions on the site. The City of Roswell accepts no responsibility for errors or omissions from this report.

Please submit an As-Built Hydrology report, one set of As-Built Survey drawings, and an annotated copy of these comments to the Water Resources Engineer in the City of Roswell PW/Environmental Department for review. Direct questions regarding the checklist and submittal requirements to PW/Environmental Department at 770-641-3715.

ASBUILT SURVEY FOR WET OR DRY DETENTION PONDS

1. Survey is signed, sealed and dated by a Registered Land Surveyor licensed in the state of Georgia.
2. Contours are shown at 1-foot or 2-foot intervals.
3. Bottom of pond elevations are shown to enable verification of positive drainage.
4. Top of wall shots or dam elevation statement is included on the survey to verify freeboard. Top width of embankment is shown.
5. Forebay providing 0.1 inch of rainfall per acre of contributing basin area and 4 to 6 feet in depth is shown at each pond inlet. The required water quality volume for each pond is shown on the survey.
6. The maximum limits of ponding are shown. The 100-year water surface elevation is shown.
7. The location of the pond is shown with respect to property lines, R/W lines, buildings, other easements, etc.
8. A detail the outlet control structure showing pertinent dimensions and elevations of weirs, orifices, outfall pipes, etc is included on the survey.
9. Water quality and channel protection orifices include filtration/trash rack to reduce the likelihood of clogging.
10. 20-foot access easement and 10-foot maintenance easement are shown around the pond. The access easement is sloped at 20% or flatter.

AS-BUILT HYDROLOGY STUDY FOR WET AND DRY DETENTION PONDS

1. Hydrology is signed, sealed and dated by a Professional Engineer licensed in the state of Georgia.
2. Water quality volume provided in the as-built pond is equal or greater than the as-designed volume. The elevation of the water quality volume is indicated on the stage/storage table. Revisions to water quality orifice size/elevation are justified by calculations.
3. Channel protection volume provided in the as-built pond is equal or greater than the as-designed volume. The elevation of the channel protection volume is indicated on the stage/storage table. Revisions to channel protection orifice size/elevation are justified by calculations.
4. The post development storm flows do not exceed the predevelopment storm flows for the 1-, 2-, 5-, 10-, 25-, 50-, or 100-year design storms.
5. Stage/storage relationship, 100-year hydrographs for all basins and routed pond(s) are provided. The beginning routing elevation for the as-built pond is provided.
6. Use the following tables as an example to organize the hydrology information.

Pond #1					
Design Storm	As-Designed Release Rates (cfs)	As-Built Release Rates (cfs)	As-Designed Water Surface Elevation (ft)	As-Built Water Surface Elevation (ft)	As-Built Freeboard Provided (ft)
1					
2					
5					
10					
25					
50					
100					

Pond #1						
	Water Quality Volume (cf)	Channel Protection Volume (cf)	Diameter of Water Quality Orifice (ft)	Elevation of Water Quality Orifice (ft)	Diameter of Channel Protection Orifice (ft)	Elevation of Channel Protection Orifice (ft)
As-Designed						
As-Built						